

SAMPLE DIKE HEIGHT CALCULATION

Calculations for this example:

- a) Minimum containment volume (mcv) = capacity of largest tank in a tank installation, in this example 50,000 gallons. $M_{cv} = 50000 \times 0.1337 \text{ cu. ft./gal} = 6.685 \text{ cu. ft.}$
* Factor in sufficient freeboard per local requirements.
- b) Dike area (proposed) Length \times Width
- c) Dike height (proposed)
- d) Dike volume (dike area \times dike height)
- e) Displacement volume (tank area \times tank height of dike wall)
*Volume of tank (cylinder) = $\pi r^2 h$
- f) Effective secondary containment
dike volume - displacement volume = x
 - 1) If x is greater than the mcv then secondary containment may be adequate, if sufficient freeboard for precipitation is factored in.
 - 2) If x is less than the mcv, adjust the dike area and dike height accordingly, then recalculate.

(NOT TO SCALE)

SAMPLE